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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,435	09/20/2005	Douglas McBain	OMNZ 2 00039 US	9981

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Chief Intellectual Property Counsel
OMNOVA Solutions Inc.
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EXAMINER

LIU, XUE H

ART UNIT	PAPER NUMBER
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1791

MAIL DATE	DELIVERY MODE
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07/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,435	Applicant(s) MCBAIN ET AL.	
	Examiner XUE LIU	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Amendment to claims in the reply filed on 4/15/08 is acknowledged. Currently, claims 1-19 are pending. Claims 1-2, 5-6, 8-9 are currently amended. Claims 10-19 are withdrawn.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In paragraph 38 of the specification, it is stated that the containment flange is formed by shaping the runner section 40. There is no suggestion or description in the specification that the containment flange is formed by injection molding from the injection molding injector.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1791

Claim 7 recites the limitation "said at least one first composition injector" and "said at least one second composition injector" in lines 2-4 in the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 8 recites the limitation "said injection molding injection" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Rejection of claim 6 in the previous office action is withdrawn in view of amendment to the claim.

Claim Rejections - 35 USC § 102

6. Rejections of claims 1, 7 and 9 in the previous office action are withdrawn in view of amendments to the claims.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiji (JP 09039024 with English Abstract and Machine Translation) in view of Arai (US 4,840,553).

Regarding claim 1, Keiji teaches a molding apparatus, comprising: mold members defining a plurality of fixed mold cavities 17, an injection molding injector 9 fluidly connected to the plurality of mold cavities 17 for injection molding molded articles therein, and an in-mold coating injector 10 having nozzles 6 fluidly connected to each of the plurality of mold cavities 17 for in-mold coating said molded articles in the plurality of mold cavities 17, said plurality of

Art Unit: 1791

mold cavities 17 fluidly connected to said injection molding injector 9 is the same as those fluidly connected to said in-mold coating injector 10, the mold members 1, 2 and the injectors 9, 10 configured to injection mold an in-mold coat molded articles in the mold cavities 17 (see fig. 1-2). As shown in fig. 3-5, the mold members 1, 2 remain a fixed distance apart relative to one another during and between injection molding an in-mold coating. While Keiji teaches an injection molding injector with two nozzles each fluidly connected to one mold cavity instead of having a single nozzle fluidly connected to each of the plurality of mold cavities, Arai teaches a molding apparatus for molding multi-layer resin having first and second composition injectors 12A, 12B which share a common pathway to fluidly connect to the mold cavity 18A (see fig. 7). One of ordinary skill in the art would have found it obvious to provide the shared pathway of the injection molding and in-mold coating injectors as taught by Arai in the molding apparatus of Keiji since this would allow a coating injector having a single nozzle to fluidly connect to a plurality of mold cavities similar to the way that the injection molding injector is fluidly connected to a plurality of mold cavities via a single nozzle, thus eliminating the need for a coating injector having a plurality of nozzles that individually connect to each of the plurality of mold cavities.

Regarding claim 2, Keiji teaches a sprue passageway 18 fluidly connected to the injection molding injector 9 and a runner section 23 fluidly connected to the sprue passageway 18 and the plurality of mold cavities 17 (see fig. 1-2).

Regarding claim 3, Keiji teaches that the runner section 23 includes a plurality of portions fluidly connected to each of said plurality of mold cavities 17 at a plurality of inlet orifices (not shown) at the interface of the mold cavities (see fig. 2).

Art Unit: 1791

Regarding claim 4, Keiji teaches that the runner section includes a tapered portion adjacent the inlet orifices for allowing relatively easy removal of thermoplastic material formed in the runner section 23 from the molded articles formed in the plurality of mold cavities 17 (see fig. 2).

Regarding claim 5, Keiji does not teach a second injector passageway fluidly connected to said in-mold coating injector and said runner section. However, Arai teaches a second injector passageway 16a₂, said second injector passageway 16a₁ having a section 16b which has a smaller cross-sectional area than said runner section 16a₂, adjacent an intersection 16d between said second injector passageway and said runner section (see figs. 7-9).

Regarding claim 6, Arai teaches that a portion of said runner sections 16a₂ adjacent said intersection 16d is relatively flat (as shown in fig. 8). Neither Keiji nor Arai teach a runner section that is generally cylindrical. However, it has been held that a mere change in shape without affecting the functioning of the part would have been within the level of ordinary skill in the art, *In re Dailey et al.*, 149 USPQ 47; *Eskimo Pie Corp. v. Levous et al.*, 3 USPQ 23.

Regarding claim 7, Keiji teaches that each of said plurality of mold cavities has a volume that remains fixed (see figs. 2-5 compared to figs. 7-10) throughout the introduction of materials through said injection molding and in-mold coating injectors.

Regarding claim 8, Arai teaches that the runner section 16a₂ includes a containment flange recess for forming a containment flange 16d that directs in-mold coating A injected from in-mold coating injector 12A toward a plurality of mold cavities 18A (figs. 7-8). Arai does not teach that the containment flange is formed by injection molding from the injection molding injector. However, with regard to the claim recitations regarding the method of forming the

Art Unit: 1791

apparatus, such relate only to the method of producing the claimed apparatus, which does not impart patentability to the apparatus claims. Note that determination of patentability is based on the product apparatus itself, *In re Brown*, 173 USPQ 685, 688, and the patentability of a product does not depend on its method of production, *In re Pilkington*, 162 USPQ 145, 147; see also *In re Thorpe*, 227 USPQ 964 (CAFC 1985). Note also that it is Applicant's burden to prove that an unobvious difference exists, *In re Marosi*, 218 USPQ 289, 292-293 (CAFC 1983), and Applicant must show that different methods of manufacture produce articles having inherently different characteristics, *Ex parte Skinner*, 2 USPQ2d 1788.

Regarding claim 9, Keiji teaches that the plurality of mold cavities 17 is fluidly connected to only a single injection molding injection 9 and is fluidly connected to only a single in-mold coating injector 10 (figs. 1-2).

Response to Arguments

9. Applicant's arguments filed 4/15/09 have been fully considered but they are not persuasive.

In response to applicant's argument that the sprues and runners of Arai could not be easily applied to the arrangement of Keiji, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that Arai is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be

Art Unit: 1791

reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both Keiji and Arai are related to an injection molding method. The fact that Arai characterizes the molding process as a sandwich molding type does not necessarily mean that the teaching of Arai cannot be applied to the injection molding apparatus of Keiji since the injection molding apparatus of Keiji is not precluded from performing sandwich molding. Furthermore, Arai provides a general teaching which can be applied to any injection molding process, not limiting to a particular type of injection molding process such as sandwich molding.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding claim 6, applicant argues that Arai does not teach that the runner section has a portion adjacent the intersection being relatively flat. However, the claim recites that the portion ADJACENT the intersection, not the portion AT the intersection being relatively flat. Therefore, Arai clearly teaches a portion of runner section 16a₂ ADJACENT an intersection 16d between a runner portion 16a₂ and a second injector passageway 16a₁ being relatively flat as shown in fig. 8A & 8B.

Art Unit: 1791

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to XUE LIU whose telephone number is (571)270-5522. The examiner can normally be reached on Monday to Friday 9:30 - 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1791

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/X. L./

Examiner, Art Unit 1791

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791